

Revisional Notes on the Cape Lycaenid *Poecilmitis brooksi* Riley,* with the description of a recently-recognised race of this species

By C. G. C. DICKSON

This butterfly was described originally as a subspecies of *Poecilmitis thysbe* (L.)—a view which was quite understandable some 30 years ago when little comparative study had been given to the members of the *thysbe* group on the basis of field observation and the precise distribution of these insects. For a considerable time now it has been realised that *brooksi* represents a good species, with overlapping occurring with *thysbe* (and its form *osbecki* Aur.) in certain localities in the South Western Cape (e.g., near Mamre) but with *brooksi* retaining its identity, without the slightest evidence of interbreeding ever taking place. The butterfly also has a much wider distribution than was at first known to be the case. The Tygerberg Hills are the nearest point to Cape Town at which it has been found, while in a northerly direction it has been taken on the Dassenberg, Darling and on Piquetberg Mountain; towards the N.E. at such localities as Malmesbury, the Paarde Berg Mountains and Tulbagh Kloof; and in an easterly direction in the Worcester district and as far afield as Riversdale (in a different form).

Two specimens of the male from E. of Riversdale, captured by Mr. W. Teare, which have been examined, diverge very considerably from all males from the type-locality (near Philadelphia) and other habitats at the western end of the butterfly's distributional range and, mainly on account of the marked extension of the blue field in both wings, might at first be taken to represent a separate species. All males, however, which have been procured within the past 30 years by the writer and others in the karroid country close to Worcester, in country of a somewhat transitional type S. of Worcester and to the E. through the Robertson Karroo, have had the blue area of the forewing (and usually that of the hindwing also) decidedly more extensive than in nominotypical males—although rarely as fully developed as in the Riversdale specimens. On these grounds, therefore, the Riversdale insect is unlikely to represent more than a subspecies of *P. brooksi* and in view of the, on the whole, less divergent specimens occurring in part of the intervening country to the west, probably not a fully independent one in the most extreme sense. As the species tends to be very localized, there may well, however, have been long-standing isolation of individual colonies even before the present cultivation of much of the ground within the insect's range took place. It can at least be assumed that permanent breaks between very many of the populations now exist as the result of the advance of agriculture, together with attendant changes in the country concerned; and that this applies to the Riversdale district itself. Some of these other specimens are in the National Collection.

Female specimens, which appeared to the writer to be particularly well marked with black on the upperside, were captured at Riversdale by Lt. Col. Hugh C. Bridges in 1950, but all trace has now been lost of these

**Poecilmitis thysbe brooksi* Riley, Trans. R. ent. Soc. Lond. 87 :241 (1938).

specimens. A male which evaded capture was seen by the writer, a few years later, at the roadside where Mr. Teare subsequently caught his male specimens.

A description of this race in which the salient features are mentioned follows hereunder.

Poecilmitis brooksi tearei subsp. nov.

Male. General arrangement of markings on both surfaces that of the nominotypical race, but the brilliant silvery-blue of the upperside considerably more extensive and, in the two specimens concerned, in the hindwing bounded externally by some scattered black scaling in addition to the black spots which are reached by the solid blue in this wing.

Upperside.

Forewing. Blue fills discoidal cell up to the small black spot before end of cell and leaves a small space of orange colouring between this spot and the large spot closing cell, but with iridescent blue scaling over the lower half of this orange space, while above the cell the blue (which is here more whitish and of a somewhat brownish form at actual edge of wing) extends for a little more than quarter of distance along costa; below cell the blue covers a very small inner portion of area 2, then extends, below vein 2, up to and partly over the black marking in area 1 b (but leaves some very slight, partial orange scaling basad of this marking) and terminates at a point on the inner-margin below the black marking.

Hindwing. Outer margin of the solid blue rather evenly curved and the more basad of the black spots, at this point, not individually sharply defined (this effect being accentuated by the scattered black scaling); iridescent blue scaling extends rather irregularly over orange area beyond margin of solid blue and on to the more distal black spots in areas 1 and 3 (in the holotype, barely on to spot in area 3)—its effect being clearly apparent, on the right hindwing, in the figure. Costa, beyond blue area, very broadly black.

Underside.

Forewing. Submarginal dark streak blackish, prominent and relatively broad. A broad blackish longitudinal streak above vein 1, reaching or virtually reaching outer black spot in area 1 b.

Hindwing. Median paler zone not very clear-cut (in the holotype largely obscured by encroachment of the dark areas on either side of it)—but the hindwing underside of the usual race is subject to variation.

Length of forewing: 13.25 mm.

♂ Holotype: E. of Riversdale, Western Cape Province, 21.xi.1963 (W. Teare); one ♂ paratype with same data. The holotype has been given to the British Museum (Natural History). (British Museum type number: Rh. 18511.)

In the holotype the costal and hind-marginal black borders are particularly heavily developed; while even in the paratype the hindwing border, especially as regards its upper portion, is more prominent than is usual in *P. brooksi brooksi* (and with the costal area as in the holotype). In both specimens there is full development of the black spotting within the orange area of both wings—in the forewing heavier, as a whole, in the holotype.

Mr. Teare, who was specially impressed by the difference between his

male specimens and those of the nominate subspecies writes as follows concerning the capture of the butterfly:—

"The butterfly was caught on the edge of the national road leading from Riversdale to Albertinia. All the specimens taken were resting on the tops of bushes which had grown up due to the breaking up of the top soil during the building of the road. No butterflies were seen resting on the grass or the ground. The immediately surrounding country was grass-land. The next three days were wet and this prevented me from searching further afield".

Notes on the early stages of *P. brooksi*, with figures, have been published by the present writer in *J. ent. Soc. S. Afr.*, Vol. 22, No. 2, pp. 312-315 (1959).

Mr. G. E. Tite has kindly read the manuscript of these current notes.

"Blencathra", Cambridge Avenue, St. Michael's Estate, Cape Town.

Insect Visitors to Buddleia and Michaelmas Daisies

By A. W. JONES

Brian Gardiner's nostalgic note in the February issue, of Buddleia and Michaelmas daisies being covered with Vanessids in our youth, prompted me to look into my notes for visitors to these flowers in Surrey, Kent and Sussex. Both are garden flowers and as I do little entomology in gardens, I found fewer notes than I had hoped. More fun for me to explore the Medway valley in Kent and record *Syrphus balteatus* Degeer on *Sonchus palustris* L., the rare marsh sowhistle in 1965. However, I had a number of records from waste places and the like.

Buddleia (*Buddleia davidii* Franch).

My rather irregular notes since 1947 give the following species visiting Buddleia:—

Butterflies:

Most years in some quantity: *Vanessa atalanta* L., *Aglais urticae* L.
Many years but not often in quantity: *Vanessa cardui* L., *Nymphalis io* L., *Pieris brassicae* L.

Rarely: *Maniola jurtina* L., *Gonepteryx rhamni* L., *Polygonia c-album* L., *Eumenis semele* L., *Pieris napi* L., *Pieris rapae* L., *Pararge megera* L., *Thymelicus sylvestris* Poda.

Eristalinae and Volucellinae (Diptera Syrphidae) rarely visit Buddleia but I have noted *Volucella pellucens* L., *V. zonaria* Poda, *V. inanis* L., *Eristalis nemorum* L., *E. tenax* L., *E. intricarius* L., *E. arbutorum* L.

Others.

Bumble-bees probably visit frequently but I have recorded only *Bombus terrestris* L. females. Honey bees (*Apis mellifera* L. are frequent as indeed at almost any flowers and I have also seen *Macroglossum stellatarum* L. in abundance in 1947 and again in 1950.

In 1954 I visited the City of London bombed sites almost every day at lunch time for flower visits of butterflies and Eristalinae (no Volucellinae